What is claimed is:

1. A method of making a surface pattern of spaced dissimilar electrical conductors that will spontaneously produce an electrical current when brought into contact with an electrolytic solution of the human body, comprising the steps of:

defining a primary surface on an article;

selecting a first conductive element and a second conductive element, the first conductive element being nobler in the electrochemical series than the second conductive element;

grinding the first conductive element into a first powder;

grinding the second conductive element into a second powder;

mixing the first powder with a binder to form a first ink;

mixing the second powder with a binder to form a second ink;

printing the first ink onto the primary surface to form a first pattern comprising at least one discrete design;

printing the second ink onto the primary surface to form a second pattern that is interspersed throughout the first pattern, but such that the first conductive element does not amalgamate with the second conductive element;

curing the first pattern and the second pattern such that they are fixed to the primary surface; and

interfacing at least part of the primary surface with an electrolytic solution such that at least part of the first pattern and the second pattern spontaneously produce an electrical current.

2. The method of claim 1 wherein the binder used to form the first ink is a biocompatible polyacrylic ink.

3. The method of claim 1 wherein the binder used to form the first ink is a biocompatible epoxy.

4. The method of claim 1 wherein the printing steps are performed using a screen printing apparatus, and the curing step is performed by drying the screen printed inks.

5. The method of claim 1 wherein the second pattern is interspersed throughout the first pattern such that there is at least a half millimeter spacing between any of the first conductive element and any of the second conductive element.

6. The method of claim 1 further comprising the steps of:

sifting the first powder through at least one screen such that those particles of the first powder that are substantially of a predetermined size are used in the first named mixing step; and

sifting the second powder through at least one screen such that those particles of the second powder that are substantially of a predetermined size are used in the second named mixing step.

7. The method of claim 1 wherein the binder mixed with the first powder comprises at least fifteen percent, by weight, of the first ink.

8. A printed pattern of voltaic cells comprising:

a primary surface of an article;

a first ink that is a mixture of a solvent reducible polymer and a first conductive element;

a second ink that is a mixture of a solvent reducible polymer and a second conductive element, the second conductive element being a different metal species than the first conductive element;

a first design formed where the first ink is printed into a position of contact with the primary surface;

a second design formed where the second ink is printed into a position of contact with the primary surface;

a spacing on the primary surface that is between the first design and the second design such that the first design cannot physically contact the second design;

at least one repetition of the first design and the second design, the at least one first design repetition being substantially adjacent the second design; and

a user provided electrolytic solution that, when brought into contact with the primary surface, causes the first design and the second design to spontaneously produce an electrical current, and causes the at least one repetition to spontaneously produce an electrical current.

9. The printed pattern of voltaic cells of claim 8 wherein the first design is substantially at least one dot, each dot having a 1.5 mm ± 1 mm mean diameter; the second design is substantially a dot having a 2.5 mm ± 2 mm mean diameter; and the spacing is 1.5 mm ± 1 mm.

10. The printed pattern of voltaic cells of claim 9 further comprising a fine line, less than 0.2 mm wide, of one of the first or second inks printed at least partially in the spacing and connecting to at least one of the first or second designs.

11. The printed pattern of voltaic cells of claim 9 wherein the first design is a hexagonally shaped dot; the second design is two hexagonally shaped dots that are spaced from each other by 2.5 mm ± 2 mm; and wherein multiple repetitions of the first design and the second design results in at least one pattern characterized by the first design being surrounded by six hexagonally shaped dots of the second design.

12. The printed pattern of voltaic cells of claim 8 wherein the first design is a line that is 2.5 mm ± 2 mm wide; and wherein the spacing is 1.5mm ± 1 mm.

13. The printed pattern of voltaic cells of claim 8 wherein the first design is comprised of visible symbols.

14. A method of making a current producing wound dressing comprising the steps of:

selecting a pliable dressing material having a face and a back;

mixing a biocompatible solvent reducible polymer and a first conductive element to form a first fluid;

mixing a biocompatible solvent reducible polymer and a second conductive element to form a second fluid;

applying the first fluid to the face of the pliable dressing material to form a first design;

applying the second fluid to the face of the pliable dressing material to form a second design such that the second design is not physically contacting the first design;

repeating the first design and the second design to create a pattern, visible by the naked eye, that alternates between the first design and the second design;

curing the first fluid and the second fluid onto the pliable dressing material;

cutting the pliable dressing material to an appropriate size for a single use; and

applying the pliable dressing material over a wound such that an electrolytic solution at least partially contacts the wound and the pliable dressing material, causing at least part of the pattern of the first design and the second design to spontaneously produce an electrical current.

15. The method of claim 14 further comprising the step of fixing an absorbent cloth layer to the back of the pliable dressing material.

16. The method of claim 15 further comprising the step of bonding an elastic adhesive layer to the absorbent cloth layer such that there is at least one overlapping piece of the elastic adhesive layer for securing an applied pliable dressing over a wound.

17. The method of claim 14 wherein the first conductive element is high purity silver powder, and wherein the second conductive element is a high purity zinc powder.

18. The method of claim 17 wherein the steps of applying the first fluid and applying the second fluid are characterized by screen printing the first fluid and the second fluid onto the pliable dressing material.

19. The method of claim 17 wherein at least half of the particles of the high purity silver powder are between 20 and 200 microns in size.

20. The method of claim 14 wherein the biocompatible solvent reducible polymer used in the mixing steps will slowly degrade when in contact with the electrolytic solution such that the conductive elements are gradually exposed to the electrolytic solution.